

REPORT OF THE UTILITIES DEPARTMENT  
of  
THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 97-004-E  
SOUTH CAROLINA ELECTRIC & GAS COMPANY



REPORT OF UTILITIES DEPARTMENT  
SOUTH CAROLINA PUBLIC SERVICE COMMISSION  
DOCKET NO. 97-004-E  
SOUTH CAROLINA ELECTRIC & GAS COMPANY

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REPORT OF UTILITIES DEPARTMENT  
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DOCKET NO. 97-004-E  
SOUTH CAROLINA ELECTRIC & GAS COMPANY  
REPORT OF FUEL ADJUSTMENT ANALYSIS

**Scope of Examination**

The Commission's Utilities Department Staff analyzed the Company's procedures and practices pertaining to its fuel operation. Staff's examination consisted of the following:

1) Review of the Company's monthly fuel reports including:

- a) Power Plant Performance Data Reports
  - b) Major Unit Outage Reports
  - c) Generation Mix
  - d) Generation Statistics
  - e) Retail Comparison of MWH Sales
  - f) Retail Comparison of Fuel Costs
- 2) On-site inspection of the Company's coal quality sampling technique.
- 3) Review of the Company's forecasting procedures.
- 4) Review of the Company's currently approved Adjustment for Fuel Costs Rider.
- 5) History of Cumulative Recovery Account
- 6) Calculation of fuel costs to be included in the base rates May 1997 through April 1998.



## REVIEW OF COMPANY'S MONTHLY FUEL REPORTS

The Company files with this Commission monthly reports that include power plant performance data, major unit outages, generation mix, and other reports that provide the Staff pertinent data on which to evaluate the Company's fuel operating expenses.

Selected information from the Power Plant Performance Data Reports for nuclear and base load fossil plants is shown on Exhibit No. 1. It includes a listing of capacity factors and equivalent availability factors for each unit by month for the period and also includes the yearly capacity factors (1994-1996) and the lifetime (cumulative) capacity factor of the nuclear station. These factors are expressed as a percentage. This percentage figure can be a useful index when attempting to locate or identify a particular problem or unusual occurrence.

Pursuant to S.C. Code Ann. Section 58-27-865 (Supp. 1996) certain criteria are established for review of a utility's effort to minimize fuel expenses. In evaluating a utility's fuel costs under this section, it is necessary to examine and determine whether the utility has made every reasonable effort to minimize fuel costs associated with the operation of its nuclear generation system while "giving due regard to reliability of service, economical generation mix, generating experience of comparable facilities and minimization of the total cost of providing service." Staff also examined records to determine if the utility achieved an adjusted capacity factor for the period under review of 92.5% for nuclear generation as required by the statute to presume cost minimization. With a reasonable refueling outage and



a 0% forced outage rate, the nuclear generation systems net capacity factor rises to 96.8%, substantially exceeding statute requirement.

The Company's Nuclear Unit Outage Report considers each outage experienced by unit, giving the inclusive dates of the outage, hours down, type of outage (scheduled or forced), the reason for the outage and the corrective action taken. This information covers the period being considered in this proceeding and is shown in Exhibit No. 2A. Staff compiled this data through review of Company documents, NRC documents and interviews with Company personnel. The Company's Nuclear Unit performed well during the period March 1996 through February 1997. The Company's nuclear system incurred a 0% equivalent forced outage rate during this test period.

The Staff's Fossil Unit Outage Report is a listing of base load plants by unit, duration of outage (greater than 100 hours), reason for down time, and corrective action taken to return the plant to service. The information specifically reviewed for this proceeding is for the months of March 1996 through February 1997 and is included in Exhibit No. 2B. Staff did not observe any particular problem areas from its analysis of the fossil unit outages reported. These Units' Availability Factors were in the 90 plus percentile for the greater portion of this period.

Staff reviewed and compiled a percentage Generation Mix statistic sheet for the Company's fossil, nuclear and hydraulic plants for March 1996 through February 1997. The fossil generation ranged from a high of 92% to a low 62%. The nuclear generation



ranged from a high of 34% to a low of 3%. The percentage of generation by hydro ranged from a high of 7% to a low of 3%. This information is included in Exhibit No. 3.

The Staff also collected and reviewed certain Generation Statistics of Major Plants for the 12 months ending February 1997. This data is presented on Exhibit No. 4. This Exhibit shows the Company's major plants by name, type of fuel used, cost in cents per kilowatt-hour to operate and total megawatt-hours generated for the period. The nuclear fueled Summer Plant was lowest in cost at 0.49 cents per kilowatt-hour. The highest amount of generation of 4,789,066 megawatt-hours was produced at the V. C. Summer Nuclear Station.

Utilities Department Exhibit No. 5 shows a comparison of the Company's original retail megawatt-hour (MWH) estimated sales to the actual sales for the period from March 1996 through February 1997. The original projections ranged from an under-estimate of 4.6% in July 1996 to an over-estimate of 7.7% in March 1996 with a total over-estimate of 1.2% for the period.

Utilities Department Exhibit No. 6 shows a comparison of the Company's original fuel cost projections to the costs actually experienced for the months of March 1996 through February 1997. The original projections ranged from an over-estimate of 12.1% for February 1997 to an under-estimate of 6.4% for May 1996. The difference between actual and original projection of these fuel costs is further delineated graphically on Utilities Department Exhibit No. 7.



#### ON-SITE INSPECTION OF COMPANY'S COAL QUALITY SAMPLING TECHNIQUES

The Company's fuel sampling procedure for coal consists of identification of each train car by specific shipper, point of origin and producer. A sample is taken from each car while unloading and is then crushed and placed in a sealed container. The sample is then sent to the laboratory and analyzed for moisture, ash, BTU and sulfur content. The results of this testing are used to determine the actual price the Company will pay for the coal it received. The price could vary from the contracted price depending upon whether the quality of the coal, such as BTU content, is higher or lower than the level stipulated in the agreement. Staff has observed the Company's procedure for fuel sampling and has found this procedure to be adequate at this time.

#### REVIEW OF THE COMPANY'S FORECASTING PROCEDURE

Estimates of Company fuel costs are based on the results of two sets of models. The first of these is ENPRO, a production costing model which is used to simulate hourly generation, purchases, and sales of electricity, based on expected loads to be seen by the Company during a given forecast period. To accomplish these tasks a variety of inputs are required, among them are: A) hourly load data, B) plant data including generating capacities (divided into loading blocks), incremental heat rates, variable and fixed O&M expenses, maintenance schedules, forced outage rates, fuel data (price/heat content), and in the case of hydro units, pond size and pond level, and C) firm purchases and sales. Once these expectations of projected operating conditions are available



to the model, it seeks to meet the Company's load at the lowest possible cost. The primary output utilized in the fuel forecast is GWH generation by plant, which is accumulated by ENPRO on a monthly basis.

Once generation is made available by ENPRO, it is converted to total fuel costs with a series of models developed by the Company. One such model is called SIMPLAN. The key inputs to these models are output heat rates by plant, beginning inventory balances by fuel type, and projected fuel prices in \$/mmbtu. The fuel models use output heat rates to convert GWH into total energy requirements measured in mmbtu. Next, projected fuel costs are calculated based on inventory fuel prices on a \$/mmbtu basis. The fuel costs are then accumulated by month to arrive at a total fuel cost. Finally, this is converted to a cost per KWH which is used to calculate the expense of fuel to be allocated to the retail jurisdiction.

#### REVIEW OF THE COMPANY'S CURRENTLY APPROVED RETAIL ADJUSTMENT FOR FUEL COSTS

The Staff has reviewed the Company's currently approved Retail Adjustment for Fuel Costs, and found it to continue to operate properly with one exception. Staff recommends that a modification be made to the tariff to delete "for the succeeding six months or shorter period" due to a change in the statute moving to a 12 month review of the Fuel Adjustment Clause. Exhibit No. 8 is a copy of the Company's currently approved Adjustment for Fuel Costs.



## HISTORY OF THE CUMULATIVE RECOVERY ACCOUNT

Exhibit No. 9 is a history of the cumulative recovery account balances from inception in 1979 to February 1997.

## CALCULATION OF BASE RATE FUEL COST COMPONENT FOR MAY 1997 THROUGH APRIL 1998.

Utilizing the currently projected sales and fuel cost figures for the period May 1997 through April 1998 and including the projected over-recovery balance of \$6,448,439 in the cumulative recovery account through April 1997 (See Accounting Exhibit H), the average fuel expense is estimated to be 1.2838 cents per kilowatt-hour. Applying this fuel factor to the period would create an ending period estimated \$11 over-collection in the cumulative recovery account.

The Commission has consistently expressed its expectation that the Company exercise all reasonable prudence and efficiency in its fuel purchasing practices and aggressively control the operation and maintenance of its production facilities to assure the lowest fuel costs possible. Also, the Commission has directed the Staff to monitor the Company's plant operations and fuel purchasing to insure that any inefficient or negligent practice is brought to the Commission's attention.

Exhibit No. 10 is a table of Projections of the Cumulative Recovery Account for various fuel base levels for the twelve month period ending April 1998. Also indicated in the table are the projected results using the current fuel factor base



component and the Company's proposed factor of 1.285 cents/KWH.



SOUTH CAROLINA ELECTRIC & GAS COMPANY  
POWER PLANT PERFORMANCE DATA REPORT  
CAPACITY FACTORS (PERCENTAGE)

PLANTS NAME	UNIT	NET MWe	YEAR 1994	YEAR 1995	YEAR 1996	MAR 1996	APR 1996	MAY 1996	JUN 1996	JUL 1996	AUG 1996	SEP 1996	OCT 1996	NOV 1996	DEC 1996	JAN 1997	FEB 1997
CANADYS	1	125	68.3	62.3	38.3	41.9	54.7	64.3	41.7	66.2	60.0	02.3	22.7	63.5	34.8	23.1	00.0
CANADYS	2	125	64.7	55.2	35.4	36.8	68.4	44.7	65.1	50.0	52.1	14.2	16.1	8.2	20.1	27.1	00.0
CANADYS	3	180	70.1	63.9	29.1	20.4	00.0	44.9	22.6	64.9	50.8	34.2	00.0	00.0	00.3	10.8	48.3
McMECKIN	1	126	68.5	83.7	59.7	46.5	82.9	90.1	86.0	84.3	74.0	00.0	00.0	36.0	66.1	82.5	80.9
McMECKIN	2	126	85.6	51.4	75.2	73.6	43.0	82.3	82.3	82.4	77.7	78.9	78.0	83.2	73.0	31.8	00.0
URQUEHART	1	75	68.8	57.3	39.0	54.1	61.4	76.3	46.9	62.1	61.2	30.1	00.0	00.0	39.6	34.9	04.6
URQUEHART	2	75	66.1	70.0	39.8	00.0	04.0	70.2	63.1	77.1	68.9	43.2	41.0	49.1	07.9	35.9	12.5
URQUEHART	3	100	62.2	70.3	59.6	69.9	56.3	77.6	72.3	77.0	70.4	45.3	41.9	52.8	45.5	32.7	11.5
WATEREE	1	350	76.8	59.8	68.6	32.7	73.1	84.6	75.5	79.6	77.9	64.1	37.9	83.9	76.3	76.5	48.7
WATEREE	2	350	62.9	75.5	66.1	50.3	78.0	84.8	78.3	65.7	78.5	80.0	68.2	17.6	73.8	52.2	75.1
WILLIAMS		560	76.0	63.6	81.7	76.1	46.9	93.7	86.7	90.9	90.6	89.8	67.7	92.1	86.2	90.7	80.5
COPE		385	—	—	62.9	64.5	73.3	56.6	62.1	83.8	67.0	68.4	44.2	67.9	52.2	71.4	69.6
FOSSIL TOTALS		2577	71.4	65.1	62.2	52.8	57.8	76.0	70.4	77.4	73.9	60.3	44.2	56.7	59.6	60.0	53.0
V. C. SUMMER*		885	57.3	97.1	85.8	102.4	46.0	10.3	100.5	99.9	95.3	96.9	99.7	97.8	100.0	99.5	100.0
(S.C.E.G.)		590															
(S.C.P.S.A.)		295															
SYSTEM TOTAL		3167	68.5	82.0	76.0	71.6	59.9	64.9	68.1	92.8	88.8	78.3	66.0	75.6	78.6	78.8	73.3

\*THE LIFETIME CAPACITY FACTOR FOR V.C. SUMMER THROUGH FEBRUARY 1997 IS 73.8%.



SOUTH CAROLINA ELECTRIC & GAS COMPANY  
POWER PLANT PERFORMANCE DATA REPORT  
AVAILABILITY FACTORS (PERCENTAGE)

PLANTS NAME	UNIT	NET MWe	MAR 1996	APR 1996	MAY 1996	JUN 1996	JUL 1996	AUG 1996	SEP 1996	OCT 1996	NOV 1996	DEC 1996	JAN 1997	FEB 1997
CANADYS	1	125	68.9	99.9	92.7	99.7	100.0	99.4	88.3	86.6	100.0	96.6	100.0	100.0
CANADYS	2	125	85.9	100.0	64.0	97.1	93.9	95.9	100.0	84.8	85.3	100.0	100.0	100.0
CANADYS	3	180	46.4	00.0	71.7	63.1	83.2	95.8	42.4	00.0	00.0	2.9	24.0	73.4
McMEKIN	1	126	66.3	95.4	100.0	100.0	100.0	100.0	7.6	00.0	48.6	97.1	93.4	100.0
McMEKIN	2	126	99.5	69.5	97.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	00.0
UROUHART	1	75	100.0	100.0	100.0	100.0	100.0	99.6	100.0	78.3	00.0	85.1	100.0	100.0
UROUHART	2	75	00.0	5.2	85.4	100.0	100.0	98.2	96.5	79.0	100.0	96.6	92.9	90.4
UROUHART	3	100	100.0	77.8	97.3	100.0	100.0	100.0	85.1	100.0	94.9	97.7	90.5	100.0
WATEREE	1	350	52.6	93.3	100.0	95.9	99.7	100.0	90.1	53.0	100.0	100.0	94.4	64.3
WATEREE	2	350	68.9	95.8	100.0	100.0	82.1	100.0	100.0	86.7	23.8	99.8	94.9	100.0
WILLIAMS		560	92.6	57.3	100.0	100.0	100.0	100.0	100.0	75.4	99.3	100.0	100.0	100.0
COPE		385	90.0	89.3	63.5	82.6	98.1	81.4	99.6	57.7	88.3	96.6	97.8	100.0
FOSSIL TOTALS		2577	72.6	73.6	89.3	94.9	96.4	97.5	84.1	66.8	70.0	89.3	84.9	85.7
V. C. SUMNER (S.C.E.G.)		885	100.0	46.6	23.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
(S.C.P.S.A.)		295												
SYSTEM TOTAL		3167	74.7	75.7	90.2	96.3	96.7	97.7	85.4	69.4	72.3	90.1	86.1	86.8

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SOUTH CAROLINA ELECTRIC & GAS COMPANY  
NUCLEAR UNIT OUTAGE REPORT

V.C. SUMMER NUCLEAR STATION

<u>NO.</u>	<u>DATE OFF</u>	<u>DATE ON</u>	<u>HOURS/TYPE*</u>	<u>REASON FOR OUTAGE AND CORRECTIVE ACTION</u>
1	04-14-96	05-24-96	953.6/S	REPAIRS AND REFUEL REFUEL 9

\* F=Forced S=Scheduled

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EXHIBIT NO. 2A



SOUTH CAROLINA ELECTRIC & GAS COMPANY  
FOSSIL UNIT OUTAGE REPORT  
(100 HOURS OR GREATER DURATION)

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EXHIBIT NO. 2B  
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<u>MONTH</u>	<u>NAME</u>	<u>HRS/TYPE*</u>	<u>REASON FOR OUTAGE AND CORRECTIVE ACTION</u>
Mar 96	Canadys 1	181.4/S	Replaced 3 thermocouple wells on the superheat outlet pipe and repaired electrostatic precipitator.
	Canadys 2	104.6/S	Installed flow straighteners in the stack.
	Canadys 3	384.5/S	Outage to replace the ash pit.
	Urquhart 2	744.0/S	Turbine and generator inspection.
	McMeekin 1	230.9/S	Inspect #1 high pressure generator.
	Wateree 1	352.7/S	Scheduled acid cleaning was performed on the unit.
	Wateree 2	116.2/S	Changed out 2B Mill Gearbox, Replacing Balance set on 2A & 2B Boiler Feed Pump.
Apr 96	Canadys 3	719.0/S	Outage to replace the ash pit.
	Urquhart 2	665.9/S	Completed work on turbine generator.
	Urquhart 3	159.5/S	Rehabilitated T 4 journal bearing at turbine end of generator.
	McMeekin 2	201.4/S	Preventative Maintenance outage.
	Williams	255.9/S	To modify and up-grade the WDPF controls system.
May 96	Canadys 2	216.7/S	Chemically cleaned boiler.
	Canadys 3	111.8/S	New ash pit was installed. Replaced all the airheater baskets. The F.D. fan steam driven turbine was disassembled, inspected and repaired as necessary.
	Cope	241.9/S	Preventative Maintenance.
Jun 96	Canadys 3	139.1/S	Outage was started to make repairs to front standard of turbine.
Jul 96	None		
Aug 96	None		
Sep 96	Canadys 3	414.4/S	Major turbine overhaul.
	Urquhart 3	107.0/S	To replace a double j-leg in the low-temp. reheat section of the boiler tube in assemblies 1-8.
	McMeekin 1	665.0/S	Rewind the generator.



SOUTH CAROLINA ELECTRIC & GAS COMPANY  
FOSSIL UNIT OUTAGE REPORT  
(100 HOURS OR GREATER DURATION)

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<u>MONTH</u>	<u>NAME</u>	<u>HRS/TYPE*</u>	<u>REASON FOR OUTAGE AND CORRECTIVE ACTION</u>
Oct 96	Canadys 2	106.0/S	To clean and chemically treat the house service cooling tower.
	Canadys 3	745.0/S	Major turbine overhaul.
	Urquhart 1	162.0/S	Installation of new automatic turbine and boiler controls.
	Urquhart 2	120.9/S	To complete a variety of maintenance jobs planned for the unit.
	McMeekin 1	745.0/S	Rewind the generator.
	Wateree 1	350.0/S	To complete numerous scheduled maintenance projects.
Nov 96	Canadys 2	106.0/S	Replace the barrel in 2-B boiler feed pump.
	Canadys 3	720.0/S	Major turbine overhaul.
	Urquhart 1	720.0/S	Installation of new automatic turbine and boiler controls.
	McMeekin 1	370.2/S	Rewind the generator.
	Wateree 2	547.5/S	To perform numerous special maintenance and repair procedures, such as a stack inspection and repair to the soot blowers.
Dec 96	Canadys 3	670.2/S	A major turbine overhaul and generator inspection was performed by General Electric.
	Urquhart 1	110.9/S	Installation of new automatic turbine and boiler controls.
Jan 97	Canadys 3	180.4/S	An overspeed trip test was performed on the main turbine.
	McMeekin 2	458.9/S	To performed needed maintenance on #2 HP turbine.
Feb 97	Canadys 3	135.0/S	The unit came off line to repair a reheater header vent tube.
	McMeekin 2	672.0/S	To perform needed maintenance on #2 HP turbine.
	Wateree 1	240.2/S	The unit came off line for a planned maintenance period.
<u>Type*</u>	S-scheduled	F-forced	



SOUTH CAROLINA ELECTRIC & GAS COMPANY

GENERATION MIX

MARCH 1, 1996 - FEBRUARY 28, 1997

		PERCENTAGE		
<u>MONTH</u>		<u>FOSSIL</u>	<u>NUCLEAR</u>	<u>HYDRO</u>
MARCH	1996	65	29	6
APRIL		81	15	4
MAY		92	3	5
JUNE		71	24	5
JULY		73	23	4
AUGUST		73	23	4
SEPTEMBER		67	26	7
OCTOBER		62	34	4
NOVEMBER		68	29	3
DECEMBER		69	28	3
JANUARY	1997	69	28	3
FEBRUARY		65	30	5



SOUTH CAROLINA ELECTRIC & GAS COMPANY  
 GENERATION STATISTICS OF MAJOR PLANTS  
 MARCH 1, 1996 - FEBRUARY 28, 1997

PLANT	TYPE FUEL	AVERAGE FUEL COST (¢/kwh)*	GENERATION (MWH)
Summer	Nuclear	0.49	4,789,066
Wateree	Coal	1.49	4,123,570
Cope	Coal-Gas	1.51	2,192,194
McMeekin	Coal-Gas	1.53	1,398,556
Williams	Coal	1.56	4,066,057
Urquhart	Coal-Gas	1.73	1,000,480
Canadys	Coal-Gas	1.78	1,194,961

(\*) The average fuel costs for coal-fired plants include oil and/or gas cost for start-up and flame stabilization.



SOUTH CAROLINA ELECTRIC & GAS COMPANY  
SOUTH CAROLINA RETAIL COMPARISON  
OF ESTIMATED TO ACTUAL ENERGY SALES

	1997												
	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	TOTAL
[1] ESTIMATED SALES [MWH]	1,305,000	1,246,000	1,239,000	1,437,000	1,582,000	1,631,000	1,596,000	1,321,000	1,265,000	1,362,000	1,476,000	1,440,000	16,900,000
[2] ACTUAL SALES [MWH]	1,212,198	1,264,585	1,271,962	1,464,831	1,658,304	1,605,833	1,615,668	1,268,209	1,210,399	1,350,749	1,412,500	1,367,073	16,702,311
[3] AMOUNT DIFFERENCE [1]-[2]	92,802	-18,585	-32,462	-27,831	-76,304	25,167	-19,668	52,791	54,601	11,251	63,500	72,927	197,689
[4] PERCENT DIFFERENCE [3]/[2]	7.7	-1.5	-2.6	-1.9	-4.6	1.6	-1.2	4.2	4.5	0.8	4.5	5.3	1.2

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EXHIBIT NO. 5



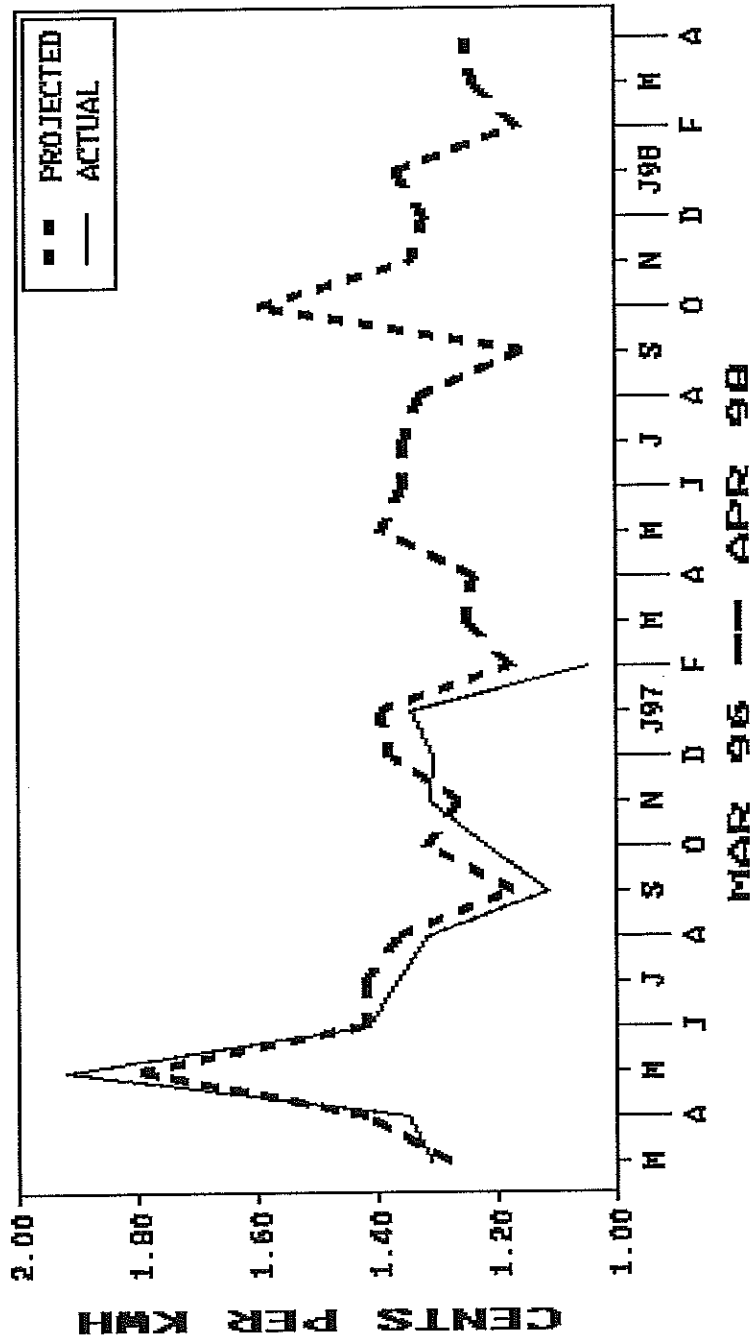
SOUTH CAROLINA ELECTRIC & GAS COMPANY  
SOUTH CAROLINA RETAIL COMPARISON  
OF ESTIMATED TO ACTUAL FUEL COSTS  
CENTS PER KWH

	1996												1997		
	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB			
[1] ORIGINAL PROJECTION	1.2836	1.4236	1.7969	1.4230	1.4232	1.3663	1.1774	1.3193	1.2665	1.3841	1.3987	1.1784			
[2] ACTUAL EXPERIENCE	1.3136	1.3503	1.9191	1.4186	1.3711	1.3196	1.1181	1.2210	1.3150	1.3113	1.3451	1.0508			
[3] AMOUNT IN BASE	1.348	1.348	1.310	1.310	1.310	1.310	1.310	1.310	1.310	1.310	1.310	1.310			
[4] VARIANCE FROM ACTUAL [1-2]/[2]	-2.3%	5.4%	-6.4%	0.3%	3.8%	4.1%	5.3%	8.1%	-3.7%	5.6%	3.9%	12.1%			

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EXHIBIT NO. 6



**SOUTH CAROLINA ELECTRIC & GAS COMPANY**  
 Projected To Actual Fuel Costs





**SOUTH CAROLINA ELECTRIC & GAS COMPANY**

**ADJUSTMENT FOR FUEL COSTS**

**APPLICABILITY**

This adjustment is applicable to and is a part of the Utility's South Carolina retail electric rate schedules.

The Public Service Commission has determined that the costs of fuel in an amount to the nearest one-thousandths of a cent, as determined by the following formula, will be included in the base rates to the extent determined reasonable and proper by the Commission for the succeeding six months or shorter period:

$$F = \frac{E}{S} + \frac{Q}{S_1}$$

Where:

F = Fuel cost per kilowatt-hour included in base rate, rounded to the nearest one-thousandth of a cent.

E = Total projected system fuel costs:

(A) Fuel consumed in the Utility's own plants and the Utility's share of fuel consumed in jointly owned or leased plants. The cost of fossil fuel shall include no items other than those listed in Account 151 of the Commission's Uniform System of Accounts for Public Utilities and Licensees. The cost of nuclear fuel shall be that as shown in Account 518 excluding rental payments on leased nuclear fuel and except that, if Account 518 also contains any expense for fossil fuel which has already been included in the cost of fossil fuel, it shall be deducted from this account.

Plus

(B) Purchased power fuel costs such as those incurred in unit power and Limited Term power purchases where the fossil fuel costs associated with energy purchased are identifiable and are identified in the billing statement.

Plus

(C) Interchange power fuel costs such as Short Term, Economy and other where the energy is purchased on an economic dispatch basis.

Energy receipts that do not involve money payments such as diversity energy and payback of storage energy are not defined as purchased or interchange power relative to this fuel calculation.

Minus

(D) The cost of fossil fuel recovered through intersystem sales including the fuel costs related to economy energy sales and other energy sold on an economic dispatch basis.

Energy deliveries that do not involve billing transactions such as diversity energy and payback of storage energy are not defined as sales relative to this fuel calculation.

S = Projected system kilowatt-hour sales excluding any intersystem sales.

G = Cumulative difference between jurisdictional fuel revenues billed and fuel expenses at the end of the month preceding the projected period utilized in E and S.

S<sub>1</sub> = Projected jurisdictional kilowatt-hour sales, for the period covered by the fuel costs included in E.

The appropriate revenue related tax factor is to be included in these calculations.

The fuel cost as determined by Public Service Commission of South Carolina Order No. 98-278 for the period May 1996 through October 1996 is 1.310 Cents per kilowatt hour.



SOUTH CAROLINA ELECTRIC & GAS COMPANY  
HISTORY OF CUMULATIVE RECOVERY ACCOUNT

<u>PERIOD ENDING</u>	<u>OVER (UNDER)\$</u>
January 1979 - Automatic Fuel Adjustment	in Effect
July 1979	4,427,600
April 1980	7,608,796
October 1980	(462,050)
April 1981	2,188,451
October 1981	(10,213,138)
April 1982	5,164,628
October 1982	9,937,268
April 1983	9,767,185
October 1983	( 4,527,441)
April 1984	(2,646,395)
October 1984	( 3,211,158)
April 1985	( 9,545,054)
October 1985	(6,115,435)
April 1986	2,474,301
October 1986	(540,455)
April 1987	( 353,393)
October 1987	( 3,163,517)
April 1988	9,247,139
October 1988	2,717,342
April 1989	( 5,665,737)
October 1989	( 8,777,726)
April 1990	( 5,288,612)
October 1990	6,536,591
April 1991	7,180,922
October 1991	4,160,275
April 1992	15,835,472
October 1992	15,449,670
April 1993	16,006,551
October 1993	10,069,457
April 1994	2,646,301
October 1994	(265,302)
April 1995	6,622,597
October 1995	4,202,766
February 1997	4,914,169